

Figure B-4. Orientation of western group of grout containment units at Trench 58 disposal locations.

INEEL Contract No. 23378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-1 1 of 2

Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Injection Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
86	1	7/29/04	1:04:10 PM	1:05:50 PM	16.5	5.5	500	2.75" / 3 sec	20	201	32	53.4	1	
87	2	7/29/04	1:14:10 PM	1:19:30 PM	24.5	19.5	500	2.75" / 3 sec	20	201	32	170.6	1	
88	3	7/29/04	1:30:10 PM	1:36:50 PM	24.5	19.5	500	2.75" / 3 sec	20	201	33	220.1	1	
89	26	7/29/04	1:45:10 PM	1:50:00 PM	23	18	500	2.75" / 3 sec	20	201	33	159.4	1	
90	25	7/29/04	2:00:50 PM	2:07:00 PM	23	18	500	2.75" / 3 sec	20	201	33	203.6	1	
91	24	7/29/04	2:20:50 PM	2:27:00 PM	22.5	17.5	500	2.75" / 3 sec	20	201	33	203.6	1	
92	31	7/31/04	9:20:00 AM	9:21:50 AM	11	6	500	2.75" / 3 sec	20	204	33	60.4	1	
93	33	7/31/04	9:28:30 AM	9:30:30 AM	11.5	6.5	500	2.75" / 3 sec	20	204	33	66.0	1	
94	32	7/31/04	9:40:00 AM	9:43:40 AM	19.5	14.5	500	2.75" / 3 sec	20	204	33	121.1	1	
95	23	7/31/04	9:51:10 AM	9:55:20 AM	22.5	17.5	500	2.75" / 3 sec	20	204	33	137.6	1	
96	30	7/31/04	10:06:00 AM	10:10:50 AM	23	18	500	2.75" / 3 sec	20	204	28	135.2	1	
97	29	7/31/04	10:18:10 AM	10:23:30 AM	24	19	500	2.75" / 3 sec	20	204	33	175.9	1	
98	34	7/31/04	10:30:50 AM	10:35:50 AM	24	19	500	2.75" / 3 sec	20	204	33	165.0	1	
99	35	7/31/04	10:44:40 AM	10:49:40 AM	24	19	500	2.75" / 3 sec	20	204	33	165.0	1	
100	41	7/31/04	10:57:00 AM	11:01:00 AM	23.5	18.5	500	2.75" / 3 sec	20	204	33	132.0	1	
109	36	8/3/04	10:51:20 AM	10:54:20 AM	15	10	500	2.75" / 3 sec	20	207	33	99.0	1	Clutch disengaged, making end time off
110	37	8/3/04	11:04:00 AM	11:07:00 AM	16	11	500	2.75" / 3 sec	20	207	34	102.0	1	
111	38	8/3/04	11:16:00 AM	11:20:40 AM	21.5	16.5	500	2.75" / 3 sec	20	207	35	163.0	1	
112	39	8/3/04	11:31:40 AM	11:35:20 AM	21.5	16.5	500	2.75" / 3 sec	20	207	36	131.0	1	
185	7	8/10/04	11:48:30 AM	11:49:40 AM	11.5	6.5	500	2.75" / 3 sec	20	208	32	37.4	2	
186	6	8/10/04	11:57:30 AM	11:59:00 AM	10	5	500	2.75" / 3 sec	20	208	32	48.0	2	
187	5	8/10/04	12:05:30 PM	12:09:20 PM	22.5	17.5	500	2.75" / 3 sec	20	208	32	122.6	2	
188	9	8/10/04	12:16:00 PM	12:21:05 PM	23	18	500	2.75" / 3 sec	20	208	32	162.6	2	
189	8	8/10/04	12:29:00 PM	12:30:45 PM	10	5	500	2.75" / 3 sec	20	208	32	56.0	2	
190	15	8/10/04	12:37:13 PM	12:42:22 PM	23	18	500	2.75" / 3 sec	20	208	32	164.8	2	
191	14	8/10/04	12:48:38 PM	12:52:50 PM	22	17	500	2.75" / 3 sec	20	208	32	134.4	2	
192	13	8/10/04	1:00:05 PM	1:04:35 PM	23	18	500	2.75" / 3 sec	20	208	32	144.0	2	



**INEEL Contract No. 233378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-1 2 of 2**

Jet Grout Installation Log - Be Block No. Trench 58-1 2 of 2

Jet Grouting Method - Single Fluid Injection Nozzle Arrangement - 2 nozzles



INEEL Contract No. 23378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-2 1 of 2

Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
101	1	7/31/04	11:16:20 AM	11:20:20 AM	23	18	19.5	500	2.75" / 3 sec	20	204	38	190.0	1
102	2	7/31/04	11:30:10 AM	11:34:10 AM	24.5	19.5	500	2.75" / 3 sec	20	204	40	160.0	1	
103	25	7/31/04	11:42:10 AM	11:43:30 AM	10	5	500	2.75" / 3 sec	20	204	41	54.5	1	
104	24	7/31/04	11:51:40 AM	11:53:30 AM	12	7	500	2.75" / 3 sec	20	204	41	75.0	1	
105	23	7/31/04	12:01:00 PM	12:05:40 PM	24	19	500	2.75" / 3 sec	20	204	41	191.5	1	
106	31	7/31/04	12:26:20 PM	12:30:30 PM	24	19	500	2.75" / 3 sec	20	204	39	162.6	1	
107	30	7/31/04	12:37:40 PM	12:39:20 PM	11.5	6.5	500	2.75" / 3 sec	20	202	38	63.5	1	
108	34	7/31/04	12:48:30 PM	12:52:00 PM	22	17	500	2.75" / 3 sec	20	202	41	143.5	1	
113	32	8/3/04	12:05:40 PM	12:10:30 PM	25	20	500	2.75" / 3 sec	20	207	40	193.2	1	
114	33	8/3/04	12:40:20 PM	12:44:00 PM	20.5	15.5	500	2.75" / 3 sec	20	206	40	146.8	1	
115	36	8/3/04	12:57:00 PM	1:00:20 PM	20	15	500	2.75" / 3 sec	20	206	41	136.5	1	
116	37	8/3/04	1:08:40 PM	1:12:40 PM	20	15	500	2.75" / 3 sec	20	206	42	168.0	1	
117	38	8/3/04	1:21:40 PM	1:24:30 PM	20	15	500	2.75" / 3 sec	20	206	42	118.9	1	
118	39	8/3/04	1:35:00 PM	1:38:20 PM	20	15	500	2.75" / 3 sec	20	206	42	139.9	1	
119	3	8/3/04	1:46:40 PM	1:51:10 PM	21.5	16.5	500	2.75" / 3 sec	20	205	40	180.0	1	
120	26	8/3/04	1:59:50 PM	2:04:00 PM	20	15	500	2.75" / 3 sec	20	205	40	166.8	1	
121	28	8/3/04	2:14:20 PM	2:15:30 PM	8.5	3.5	500	2.75" / 3 sec	20	205	40	46.8	1	
122	29	8/3/04	2:22:20 PM	2:26:20 PM	20	15	500	2.75" / 3 sec	20	205	42	168.0	1	
123	35	8/3/04	2:33:00 PM	2:38:00 PM	20	15	500	2.75" / 3 sec	20	205	41	205.0	1	
124	42	8/3/04	2:46:30 PM	2:51:20 PM	20	15	500	2.75" / 3 sec	20	205	42	202.9	1	
125	41	8/3/04	2:59:20 PM	3:04:00 PM	20	15	500	2.75" / 3 sec	20	205	41	191.5	1	
126	40	8/3/04	3:11:00 PM	3:16:00 PM	20	15	500	2.75" / 3 sec	20	208	33	205.0	1	
198	7	8/10/04	2:21:25 PM	2:25:15 PM	23	18	500	2.75" / 3 sec	20	205	32	126.4	2	
199	6	8/10/04	2:34:43 PM	2:38:20 PM	24	19	500	2.75" / 3 sec	20	205	32	115.8	2	
200	5	8/10/04	2:46:14 PM	2:49:57 PM	22	17	500	2.75" / 3 sec	20	205	32	119.0	2	
201	9	8/10/04	3:03:00 PM	3:06:40 PM	23	18	500	2.75" / 3 sec	20	205	32	117.4	2	
202	8	8/10/04	3:16:00 PM	3:19:46 PM	23	18	500	2.75" / 3 sec	20	205	32	120.6	2	



**INNEEL Contract No. 23378 - In Situ Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-2 2 of 2**

Jet Grouting Method - Single Fluid Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Injection Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
203	15	8/10/04	3:30:42 PM	3:34:30 PM	25	20	500	2.75" / 3 sec	20	205	33	125.4	2	Two nozzles
204	14	8/10/04	3:45:20 PM	4:48:49 PM	24	19	500	2.75" / 3 sec	20	205	32	118.4	2	Two nozzles
205	13	8/10/04	3:57:55 PM	4:01:05 PM	23	18	500	2.75" / 3 sec	20	205	32	118.4	2	Two nozzles
206	16	8/10/04	4:11:15 PM	4:15:50 PM	24	19	500	2.75" / 3 sec	20	204	32	146.6	2	end of shift filled Gcu up with wax. Two nozzles
352	27	8/20/04	12:56:00 PM	1:00:30 PM	21	16	500	2.75+/- / 2.5 sec	25	204	33	148.5	3	Two nozzles
353	4	8/20/04	1:07:40 PM	1:10:50 PM	20.5	15.5	500	2.75+/- / 2.5 sec	25	204	33	104.6	3	Two nozzles
354	10	8/20/04	1:16:40 PM	1:20:20 PM	23	18	500	2.75+/- / 2.5 sec	25	204	33	121.1	3	Two nozzles
355	11	8/20/04	1:28:10 PM	1:32:40 PM	22	17	500	2.75+/- / 2.5 sec	25	204	33	148.5	3	Two nozzles
356	12	8/20/04	1:45:10 PM	1:48:10 PM	21.5	16.5	500	2.75+/- / 2.5 sec	25	204	33	99.0	3	Two nozzles
357	22	8/20/04	1:54:30 PM	1:57:40 PM	22	17	500	2.75+/- / 2.5 sec	25	200	33	104.6	3	Two nozzles
358	21	8/20/04	2:02:40 PM	2:05:50 PM	21.5	16.5	500	2.75+/- / 2.5 sec	25	200	33	104.6	3	Two nozzles
359	20	8/20/04	2:10:40 PM	2:13:50 PM	22	17	500	2.75+/- / 2.5 sec	25	200	33	104.6	3	Two nozzles
360	19	8/20/04	2:20:00 PM	2:23:00 PM	23	18	500	2.75+/- / 2.5 sec	25	200	33	99.0	3	Two nozzles
361	18	8/20/04	3:15:40 PM	3:17:40 PM	22.5	17.5	500	5" / 2.5 sec	25	200	59	118.0	3	Four nozzles
362	17	8/20/04	3:25:50 PM	3:28:10 PM	23	18	500	5" / 2.5 sec	25	200	60	139.8	3	Four nozzles



**INEEL Contract No. 23378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-3 1 of 2**

**Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles**

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jettied Length (ft)	Grout Injection Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
127	3	8/4/04	12:41:00 PM	12:46:10 PM	24	19	500	2.75"/3 sec	20	206	39	2016	1	
128	4	8/4/04	12:57:15 PM	1:02:30 PM	24	19	500	2.75"/3 sec	20	206	40	210.0	1	
129	5	8/4/04	1:15:10 PM	1:21:45 PM	24.5	19.5	500	2.75"/3 sec	20	206	42	276.4	1	
130	9	8/4/04	1:29:50 PM	1:34:50 PM	24.5	19.5	500	2.75"/3 sec	20	206	42	210.0	1	
131	10	8/4/04	1:45:15 PM	1:46:10 PM	9.5	4.5	500	2.75"/3 sec	20	206	41	38.0	1	
132	11	8/4/04	2:38:00 PM	2:41:00 PM	13	8	500	2.75"/3 sec	20	206	20	60.0	1 nozzle	
133	12	8/4/04	2:55:00 PM	2:57:30 PM	12	7	500	2.75"/3 sec	20	206	16	40.0	1	
134	13	8/4/04	3:19:00 PM	3:23:00 PM	24.5	19.5	500	2.75"/3 sec	20	206	27	108.0	1	switch monitor
135	18	8/4/04	3:39:10 PM	3:41:00 PM	8	3	500	2.75"/3 sec	20	206	30	54.9	1	wax truck nose plugged
136	19	8/4/04	3:49:00 PM	3:49:14 PM	6	1	500	2.75"/3 sec	20	206	33	7.6	1 & 2	
137	20	8/4/04	3:55:50 PM	4:00:50 PM	25	20	500	2.75"/3 sec	20	206	34	170.0	1 & 2	clutch disengaged 2x
138	21	8/4/04	4:23:06 PM	4:26:25 PM	13	8	500	2.75"/3 sec	20	208	30	69.6	1 & 2	fixed loose joint
139	22	8/4/04	4:32:30 PM	4:34:00 PM	12	7	500	2.75"/3 sec	20	208	30	45.0	1 & 2	very soft big voids drilling
140	6	8/4/04	4:56:30 PM	5:00:30 PM	24	19	500	2.75"/3 sec	20	208	30	120.0	1 & 2	very soft big voids drilling
141	7	8/4/04	5:11:50 PM	5:15:10 PM	24	19	500	2.75"/3 sec	20	208	35	116.6	1 & 2	very soft big voids drilling
142	8	8/4/04	5:24:55 PM	5:30:20 PM	24.5	19.5	500	2.75"/3 sec	20	208	33	178.9	1 & 2	voids 18" drained from GCU no hammer
143	15	8/4/04	5:41:10 PM	5:45:50 PM	24	19	500	2.75"/3 sec	20	208	35	163.5	1 & 2	very soft big voids drilling
144	14	8/4/04	6:04:45 PM	6:10:45 PM	24	19	500	2.75"/3 sec	20	208	37	222.0	1 & 2	very soft big voids drilling
145	16	8/4/04	6:18:20 PM	6:22:50 PM	24	19	500	2.75"/3 sec	20	208	34	153.0	1 & 2	very soft big voids drilling
146	17	8/4/04	6:36:40 PM	6:40:10 PM	24	19	500	2.75"/3 sec	20	208	38	133.0	1 & 2	Radcon stopped 2x chk contamination
207	27	8/11/04	9:50:30 AM	9:55:15 AM	24	19	500	2.75"/3 sec	20	215	32	152.0	2	
208	2	8/11/04	10:03:10 AM	10:04:50 AM	13	8	500	2.75"/3 sec	20	215	32	53.4	2	
209	25	8/11/04	10:11:15 AM	10:12:50 AM	12.5	7.5	500	2.75"/3 sec	20	215	33	52.1	2	
210	26	8/11/04	10:19:35 AM	10:23:35 AM	23	18	500	2.75"/3 sec	20	215	33	132.0	2	
211	28	8/11/04	10:32:10 AM	10:36:54 AM	24	19	500	2.75"/3 sec	20	215	33	156.1	2	
212	29	8/11/04	10:42:55 AM	10:47:05 AM	24	19	500	2.75"/3 sec	20	215	33	137.6	2	
213	30	8/11/04	10:54:35 AM	10:58:28 AM	23	18	500	2.75"/3 sec	20	215	33	128.0	2	



**NEEL Contract No. 23378 - In Situ Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-3**
2 of 2

Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles

Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles

INEEL Contract No. 23378 - In Situ Grouting of Be Blocks in the SDA
 Jet Grout Installation Log - Be Block No. Trench 58-3 2 of 2

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Injection Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
214	34	8/11/04	11:05:40 AM	11:09:55 AM	24	19	500	2.75"/3 sec	20	215	33	140.3	2	
215	1	8/11/04	11:20:55 AM	11:24:55 AM	24	19	500	2.75"/3 sec	20	215	33	132.0	2	
216	24	8/11/04	11:34:30 AM	11:38:10 AM	24	19	500	2.75"/3 sec	20	215	33	121.1	2	
217	23	8/11/04	11:47:28 AM	11:51:45 AM	24.5	19.5	500	2.75"/3 sec	20	215	33	141.2	2	Filled Gcu with wax moved to 58.4
218	31	8/11/04	11:58:35 AM	12:02:35 PM	24	19	500	2.75"/3 sec	20	215	33	132.0	2	
331	32	8/17/04	10:44:31 AM	10:48:05 AM	24	19	500	2.75+/-/2.5 sec	25	203	34	121.4	2	
332	33	8/17/04	10:53:35 AM	10:56:50 AM	24	19	500	2.75+/-/2.5 sec	25	203	35	113.8	2	lighten loose pipe joint
333	36	8/17/04	11:03:45 AM	11:07:05 AM	24	19	500	2.75+/-/2.5 sec	25	203	32	106.6	2	
334	37	8/17/04	11:12:36 AM	11:16:00 AM	24	19	500	2.75+/-/2.5 sec	25	203	32	108.8	2	
335	38	8/17/04	11:21:32 AM	11:24:40 AM	24	19	500	2.75+/-/2.5 sec	25	203	33	103.3	2	
336	39	8/17/04	11:29:43 AM	11:33:50 AM	24	19	500	2.75+/-/2.5 sec	25	203	33	136.0	2	
348	40	8/20/04	10:56:40 AM	11:00:10 AM	24	19	500	2.75+/-/2.5 sec	25	204	33	115.5	3	
349	35	8/20/04	11:06:10 AM	11:09:40 AM	23	18	500	2.75+/-/2.5 sec	25	204	33	115.5	3	
350	41	8/20/04	12:21:00 PM	12:25:10 PM	23.5	18.5	500	2.75+/-/2.5 sec	25	204	33	137.6	3	
351	42	8/20/04	12:31:30 PM	12:35:00 PM	23	18	500	2.75+/-/2.5 sec	25	204	33	115.5	3	



INEEL Contract No. 23378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-4 1 of 2

Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Injection Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
147	4	8/5/04	10:12:40 AM	10:18:18 AM	24	19	500	2.75'/3 sec	20	212	29	163.3	2	clutch disengaged 2x
148	5	8/5/04	10:28:45 AM	10:33:33 AM	24	19	500	2.75'/3 sec	20	212	34	163.2	2	
149	6	8/5/04	10:44:28 AM	10:48:20 AM	21	16	500	2.75'/3 sec	20	212	35	123.9	2	
150	9	8/5/04	11:12:40 AM	11:16:50 AM	20	15	500	2.75'/3 sec	20	212	40	166.8	2	check pipe joints
151	10	8/5/04	11:31:00 AM	11:35:15 AM	24	19	500	2.75'/3 sec	20	212	37	157.3	2	
152	11	8/5/04	11:57:48 AM	11:58:50 AM	10	5	500	2.75'/3 sec	20	212	41	42.2	2	
153	12	8/5/04	12:10:45 PM	12:15:15 PM	22.5	17.5	500	2.75'/3 sec	20	212	38	171.0	2	
154	13	8/5/04	12:25:00 PM	12:28:50 PM	21	16	500	2.75'/3 sec	20	212	38	145.5	2	
155	18	8/5/04	12:36:45 PM	12:45:20 PM	24	19	500	2.75'/3 sec	20	210	38	326.0	2	very soft, no hammer, rig stopped lifting refusal
156	19	8/5/04	12:55:00 PM	1:00:15 PM	24	19	500	2.75'/3 sec	20	210	39	204.8	2	
157	20	8/5/04	1:13:13 PM	1:14:14 PM	9	4	500	2.75'/3 sec	20	210	37	37.7	2	
158	21	8/5/04	1:21:05 PM	1:22:15 PM	8.5	3.5	500	2.75'/3 sec	20	210	37	43.3	2	
159	22	8/5/04	1:41:19 PM	1:42:30 PM	9	4	500	2.75'/3 sec	20	210	37	43.7	2	
160	7	8/5/04	1:58:05 PM	2:01:25 PM	19	14	500	2.75'/3 sec	20	210	37	123.2	2	very soft, no hammer most of the way
161	8	8/5/04	2:09:55 PM	2:11:15 PM	9	4	500	2.75'/3 sec	20	210	37	49.2	2	very soft, no hammer most of the way
162	15	8/5/04	2:24:38 PM	2:27:35 PM	20	15	500	2.75'/3 sec	20	210	35	103.3	2	very soft, no hammer most of the way
163	14	8/5/04	2:34:50 PM	2:38:15 PM	20	15	500	2.75'/3 sec	20	210	41	140.2	2	very soft, no hammer most of the way
164	17	8/5/04	2:45:15 PM	2:49:45 PM	19.5	14.5	500	2.75'/3 sec	20	210	38	171.0	2	very soft, no hammer most of the way
165	16	8/5/04	12:16:10 PM	12:17:22 PM	11	6	500	2.75'/3 sec	20	215	33	39.6	2	
219	27	8/11/04	12:24:50 PM	12:25:30 PM	7.5	2.5	500	2.75'/3 sec	20	215	33	22.1	2	
220	3	8/11/04	12:33:15 PM	12:36:40 PM	20	15	500	2.75'/3 sec	20	215	33	112.9	2	
221	2	8/11/04	12:44:00 PM	12:44:20 PM	6	1	500	2.75'/3 sec	20	210	32	10.6	2	
222	25	8/11/04	12:55:05 PM	12:56:05 PM	9	4	500	2.75'/3 sec	20	210	32	32.0	2	
223	26	8/11/04	1:03:33 PM	1:07:40 PM	24	19	500	2.75'/3 sec	20	210	32	131.8	2	
224	28	8/11/04	1:15:30 PM	1:19:00 PM	22	17	500	2.75'/3 sec	20	210	32	112.0	2	
225	29	8/11/04	1:25:55 PM	1:29:09 PM	20	15	500	2.75'/3 sec	20	210	32	103.4	2	



**INEEL Contract No. 233378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-4 2 of 2**

Jet Grouting Method - Single Fluid Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Injection Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
227	34	8/11/04	1:37:10 PM	1:40:50 PM	21	16	500	2.75"+/- 3 sec	20	210	32	117.4	2
228	35	8/11/04	1:47:30 PM	1:51:10 PM	24	19	500	2.75"+/- 3 sec	20	210	33	121.1	2
229	42	8/11/04	1:58:17 PM	2:02:13 PM	23	18	500	2.75"+/- 3 sec	20	210	33	129.7	2
230	41	8/11/04	2:08:50 PM	2:12:10 PM	23	18	500	2.75"+/- 3 sec	20	210	33	109.9	2
231	40	8/11/04	2:19:15 PM	2:22:35 PM	22	17	500	2.75"+/- 3 sec	20	210	32	106.6	2
232	39	8/11/04	2:29:25 PM	2:32:35 PM	21	16	500	2.75"+/- 3 sec	20	210	32	101.4	2
233	38	8/11/04	2:39:55 PM	2:43:13 PM	20	15	500	2.75"+/- 3 sec	20	210	33	108.9	2
323	1	8/17/04	9:27:31 AM	9:29:25 AM	15	10	500	2.75"+/- 2.5 sec	25	203	31	58.9	2
324	23	8/17/04	9:37:35 AM	9:40:12 AM	19	14	500	2.75"+/- 2.5 sec	25	203	32	34.6	2
325	24	8/17/04	9:45:21 AM	9:47:46 AM	19.5	14.5	500	2.75"+/- 2.5 sec	25	203	32	77.4	2
326	31	8/17/04	9:53:40 AM	9:56:12 AM	19	14	500	2.75"+/- 2.5 sec	25	203	33	83.5	2
327	32	8/17/04	10:01:10 AM	10:04:27 AM	19	14	500	2.75"+/- 2.5 sec	25	203	33	108.2	2
328	33	8/17/04	10:12:00 AM	10:14:30 AM	20	15	500	2.75"+/- 2.5 sec	25	203	33	82.5	2
329	36	8/17/04	10:20:05 AM	10:22:35 AM	19.5	14.5	500	2.75"+/- 2.5 sec	25	203	33	75.9	2
330	37	8/17/04	10:27:55 AM	10:30:25 AM	20	15	500	2.75"+/- 2.5 sec	25	203	33	75.9	2



INEEL Contract No. 23378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-5 1 of 2

Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Injection Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
166	7	8/9/04	10:49:15 AM	10:53:00 AM	21	16	500	2.75" / 3 sec	20	200	24	91.9	2	check nozzle after col
167	6	8/9/04	11:01:15 AM	11:04:15 AM	19.5	14.5	500	2.75" / 3 sec	20	200	24	72.0	2	switched out monitor & bit
168	5	8/9/04	11:13:20 AM	11:14:00 AM	7.5	2.5	500	2.75" / 3 sec	20	200	24	16.1	2	soft voids down part way no hammer!
169	8	8/9/04	11:34:30 AM	11:38:00 AM	20.5	15.5	500	2.75" / 3 sec	20	200	32	112.0	2	soft voids down part way no hammer!
170	9	8/9/04	11:46:36 AM	11:47:33 AM	9	4	500	2.75" / 3 sec	20	200	32	30.4	2	soft voids down part way no hammer!
171	13	8/9/04	11:55:40 AM	11:58:22 AM	16.5	11.5	501	2.75" / 3 sec	21	200	32	77.4	2	soft voids down part way no hammer!
172	14	8/9/04	12:06:00 PM	12:09:30 PM	20	15	500	2.75" / 3 sec	20	200	32	112.0	2	soft voids down part way no hammer!
173	15	8/9/04	12:16:05 PM	12:20:06 PM	21.5	16.5	500	2.75" / 3 sec	20	200	32	128.6	2	soft voids down part way no hammer!
174	16	8/9/04	12:27:00 PM	12:31:00 PM	20	15	500	2.75" / 3 sec	20	200	38	152.0	2	clutch disengaged 1x click o-ring on pipe
175	17	8/9/04	12:55:12 PM	12:58:40 PM	21	16	500	2.75" / 3 sec	20	200	32	111.0	2	soft voids down part way no hammer!
176	18	8/9/04	1:06:40 PM	1:10:20 PM	20	15	500	2.75" / 3 sec	20	200	32	117.4	2	soft voids down part way no hammer!
177	19	8/9/04	1:19:05 PM	1:22:10 PM	19	14	500	2.75" / 3 sec	20	198	32	98.6	2	soft voids down part way no hammer!
178	4	8/9/04	1:34:31 PM	1:36:00 PM	11	6	500	2.75" / 3 sec	20	198	32	47.4	2	soft voids down part way no hammer!
179	11	8/9/04	1:43:40 PM	1:47:20 PM	19.5	14.5	500	2.75" / 3 sec	20	198	32	117.4	2	soft voids down part way no hammer!
180	10	8/9/04	1:54:50 PM	1:57:49 PM	19	14	500	2.75" / 3 sec	20	198	32	95.4	2	soft voids down part way no hammer!
181	12	8/9/04	2:08:30 PM	2:12:00 PM	19	14	500	2.75" / 3 sec	20	198	38	133.0	2	soft drilling, clutch disengaged 2x
182	20	8/9/04	2:22:15 PM	2:27:20 PM	20	15	500	2.75" / 3 sec	20	198	32	162.6	2	change o-ring in pipe joint chg monitor
183	21	8/9/04	3:30 PM	3:32:00 PM	12	7	500	2.75" / 3 sec	20	198	39.5	79.0	2	check pipe joints again strokes up!
184	22	8/9/04	3:41:45 PM	3:44:30 PM	19.5	14.5	500	2.75" / 3 sec	20	198	35	96.3	2	soft voids pushed down no hammer!
311	27	8/16/04	3:03:26 PM	3:06:47 PM	19	14	500	2.75+/-" / 2.5 sec	25	216	31	103.9	2	back to .5 per bill chg RPM&time per bill
312	3	8/16/04	3:15:50 PM	3:18:31 PM	19	14	500	2.75+/-" / 2.5 sec	25	216	32	85.8	2	
313	2	8/16/04	3:26:22 PM	3:27:04 PM	8	3	500	2.75+/-" / 2.5 sec	25	216	33	23.1	2	
314	1	8/16/04	3:33:11 PM	3:34:24 PM	11.5	6.5	500	2.75+/-" / 2.5 sec	25	216	32	39.0	2	
315	23	8/16/04	3:39:58 PM	3:41:21 PM	12.5	7.5	500	2.75+/-" / 2.5 sec	25	216	32	44.2	2	
316	24	8/16/04	3:47:21 PM	3:49:37 PM	19	14	500	2.75+/-" / 2.5 sec	25	216	33	74.9	2	
317	25	8/16/04	3:55:48 PM	3:58:00 PM	13.5	8.5	500	2.75+/-" / 2.5 sec	25	216	33	72.6	2	
318	26	8/16/04	4:05:00 PM	4:08:12 PM	18.5	13.5	500	2.75+/-" / 2.5 sec	25	216	32	102.4	2	



**INEEL Contract No. 233378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. Trench 58-5 2 of 2**

Jet Grouting Method - Single Fluid Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
319	28	8/16/04	4:14:00 PM	4:16:20 PM	18.5	13.5	500	2.75+/-" / 2.5 sec	25	216	32	74.6	2	
320	29	8/16/04	4:23:00 PM	4:25:39 PM	19.5	14.5	500	2.75+/-" / 2.5 sec	25	216	33	87.5	2	
321	30	8/16/04	4:33:35 PM	4:36:30 PM	19	14	500	2.75+/-" / 2.5 sec	25	216	33	96.4	2	
322	31	8/16/04	4:42:00 PM	4:44:40 PM	20	15	500	2.75+/-" / 2.5 sec	25	216	33	88.1	2	
337	32	8/20/04	9:01:20 AM	9:05:00 AM	21.5	16.5	500	2.75+/-" / 2.5 sec	25	204	33	114.8	3	
338	36	8/20/04	9:13:00 AM	9:16:00 AM	20.5	15.5	500	2.75+/-" / 2.5 sec	25	204	33	99.0	3	
339	33	8/20/04	9:22:30 AM	9:25:40 AM	20	15	500	2.75+/-" / 2.5 sec	25	204	33	104.6	3	
340	37	8/20/04	9:32:10 AM	9:35:20 AM	20	15	500	2.75+/-" / 2.5 sec	25	204	33	104.6	3	
341	38	8/20/04	9:42:20 AM	9:45:30 AM	20	15	500	2.75+/-" / 2.5 sec	25	204	33	104.6	3	
342	34	8/20/04	9:52:40 AM	9:55:40 AM	19.5	14.5	500	2.75+/-" / 2.5 sec	25	204	33	99.0	3	
343	39	8/20/04	10:01:20 AM	10:04:40 AM	19	14	500	2.75+/-" / 2.5 sec	25	204	33	109.9	3	
344	40	8/20/04	10:10:20 AM	10:13:10 AM	18.5	13.5	500	2.75+/-" / 2.5 sec	25	204	33	83.5	3	
345	41	8/20/04	10:19:20 AM	10:22:00 AM	18.5	13.5	500	2.75+/-" / 2.5 sec	25	204	33	88.1	3	
346	35	8/20/04	10:27:40 AM	10:30:20 AM	19	14	500	2.75+/-" / 2.5 sec	25	204	33	88.1	3	
347	42	8/20/04	10:35:50 AM	10:38:30 AM	18.5	13.5	500	2.75+/-" / 2.5 sec	25	204	33	88.1	3	



Soil Vault Row 17

Orientation of the GCUs placed over SVR-17 disposal locations are shown below. Four GCUs were arranged on a roughly east-west axis over this trench. The easternmost two were slightly modified from the design used for the other SVRs to accommodate the estimated locations of the disposals. The centers of the hole patterns were shifted about 33 cm (13 in.) from the center of the GCUs, as shown in Figure B-5. The GCUs also were offset from each other by about 101.6 cm (40 in.) in the north-south direction.

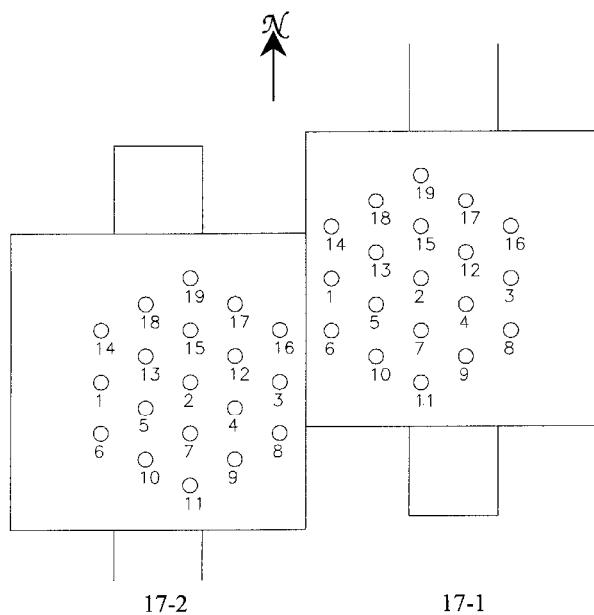


Figure B-5. Orientation of eastern group of grout containment units at Soil Vault Row 17 disposal locations.

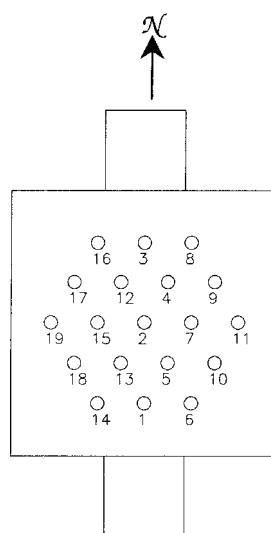


Figure B-6. Orientation of western grout containment units (17-3 and 17-4) at Soil Vault Row 17 disposal locations.

**INEEL Contract No. 23378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. SHV 17-1**

Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Injection Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
234	12	8/12/04	11:02:10 AM	11:03:20 AM	9.5	4.5	500	2.75" / 3 sec	20	205	31	36.3	2	
235	13	8/12/04	11:10:45 AM	11:11:35 AM	9.5	4.5	500	2.75" / 3 sec	20	205	32	26.6	2	
236	1	8/12/04	11:17:45 AM	11:19:00 AM	9.5	4.5	500	2.75" / 3 sec	20	205	32	40.0	2	
237	2	8/12/04	11:23:40 AM	11:24:45 AM	9.5	4.5	500	2.75" / 3 sec	20	205	32	34.6	2	
238	3	8/12/04	11:32:25 AM	11:33:25 AM	10	5	500	2.75" / 3 sec	20	205	32	32.0	2	
239	4	8/12/04	11:38:45 AM	11:40:00 AM	10	5	500	2.75" / 3 sec	20	205	32	40.0	2	
240	5	8/12/04	11:44:52 AM	11:45:50 AM	9	4	500	2.75" / 3 sec	20	205	32	31.0	2	
241	6	8/12/04	11:51:25 AM	11:52:40 AM	9.5	4.5	500	2.75" / 3 sec	20	205	32	40.0	2	
242	7	8/12/04	11:57:30 AM	11:58:35 AM	10	5	500	2.75" / 3 sec	20	205	32	34.6	2	
243	8	8/12/04	12:03:40 PM	12:04:40 PM	10	5	500	2.75" / 3 sec	20	205	32	32.0	2	
244	10	8/12/04	12:10:00 PM	12:11:15 PM	8.5	3.5	500	2.75" / 3 sec	20	205	32	40.0	2	
245	9	8/12/04	12:15:52 PM	12:17:05 PM	8.5	3.5	500	2.75" / 3 sec	20	205	32	39.0	2	
246	11	8/12/04	12:23:47 PM	12:24:54 PM	8.5	3.5	500	2.75" / 3 sec	20	205	32	35.8	2	
305	16	8/16/04	10:57:38 AM	10:58:44 AM	9.5	5.5	500	2.75" / 3 sec	20	217	33	36.3	2	
306	15	8/16/04	11:04:54 AM	11:06:26 AM	9.5	5.5	500	2.75" / 3 sec	20	217	33	50.5	2	
307	14	8/16/04	11:11:13 AM	11:11:49 AM	5.5	1.5	500	2.75" / 3 sec	20	217	33	19.8	2	
308	17	8/16/04	11:18:11 AM	11:19:39 AM	9.5	5.5	500	2.75" / 3 sec	20	217	33	48.5	2	
309	18	8/16/04	11:25:11 AM	11:26:22 AM	8.5	4.5	500	2.75" / 3 sec	20	217	33	38.9	2	
310	19	8/16/04	11:31:39 AM	11:33:00 AM	8.5	4.5	500	2.75" / 3 sec	20	217	33	44.6	2	



**INNEEL Contract No. 23378 - In-Situ Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. S4-V17-2**

Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
247	13	8/12/04	12:34:45 PM	12:35:27 PM	8	3	500	2.75"	3 sec	20	205	32	224	2
248	1	8/12/04	12:40:35 PM	12:41:12 PM	8.5	3.5	500	2.75"	3 sec	20	205	32	19.8	2
249	15	8/12/04	12:46:00 PM	12:46:35 PM	8	3	500	2.75"	3 sec	20	205	32	18.6	2
250	17	8/12/04	12:50:45 PM	12:51:32 PM	8	3	500	2.75"	3 sec	20	205	32	25.0	2
251	16	8/12/04	12:56:35 PM	12:57:47 PM	8.5	3.5	500	2.75"	3 sec	20	205	32	38.4	2
252	12	8/12/04	1:03:05 PM	1:04:05 PM	9.5	4.5	500	2.75"	3 sec	20	205	33	33.0	2
253	2	8/12/04	1:09:22 PM	1:10:19 PM	9.5	4.5	500	2.75"	3 sec	20	205	33	31.4	2
254	5	8/12/04	1:14:57 PM	1:16:03 PM	9.5	4.5	500	2.75"	3 sec	20	205	33	36.3	2
255	6	8/12/04	1:20:15 PM	1:21:15 PM	9	4	500	2.75"	3 sec	20	205	33	33.0	2
256	3	8/12/04	1:26:50 PM	1:28:00 PM	10	5	500	2.75"	3 sec	20	205	33	38.6	2
257	4	8/12/04	1:33:40 PM	1:34:43 PM	9.5	4.5	500	2.75"	3 sec	20	205	33	34.7	2
258	7	8/12/04	1:40:10 PM	1:41:05 PM	9	4	500	2.75"	3 sec	20	205	33	30.4	2
259	10	8/12/04	1:45:07 PM	1:46:14 PM	9	4	500	2.75"	3 sec	20	205	33	37.0	2
260	8	8/12/04	1:51:55 PM	1:53:04 PM	9	4	500	2.75"	3 sec	20	205	33	38.0	2
261	9	8/12/04	1:57:51 PM	1:58:56 PM	9.5	4.5	500	2.75"	3 sec	20	205	33	35.6	2
262	11	8/12/04	2:03:16 PM	2:04:32 PM	9	4	500	2.75"	3 sec	20	205	32	40.6	2
301	19	8/16/04	10:22:00 AM	10:28:07 AM	9	5	500	2.75"	3 sec	20	217	32	35.8	2
302	18	8/16/04	10:32:30 AM	10:33:00 AM	9	5	500	2.75"	3 sec	20	217	33	16.5	2
303	18	8/16/04	10:35:30 AM	10:36:23 AM	9	5	500	2.75"	3 sec	20	217	33	29.0	2
304	14	8/16/04	10:45:04 AM	10:45:55 AM	9	5	500	2.75"	3 sec	20	217	33	28.1	2



**INEEL Contract No. 223378 - In-Situ Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. SHV-17-3**

Jet Grouting Method - Single Fluid

Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (ticket)	Observations / Remarks
263	12	8/12/04	2:37:00 PM	2:39:40 PM	16.5	12.5	500	2.75" / 3 sec	20	205	33	88.1	2	Bill L said stop at -4 from now on
264	17	8/12/04	2:46:10 PM	2:48:38 PM	16	12	500	2.75" / 3 sec	20	205	33	81.5	2	
265	9	8/12/04	2:54:13 PM	2:56:09 PM	14.5	10.5	500	2.75" / 3 sec	20	205	33	63.7	2	
266	4	8/12/04	3:01:35 PM	3:04:00 PM	15.5	11.5	500	2.75" / 3 sec	20	205	33	79.9	2	
267	19	8/12/04	3:10:30 PM	3:12:35 PM	16	12	500	2.75" / 3 sec	20	205	33	68.6	2	
268	11	8/12/04	3:19:02 PM	3:21:14 PM	14.5	10.5	500	2.75" / 3 sec	20	205	33	72.6	2	
269	7	8/12/04	3:27:13 PM	3:29:29 PM	14	10	500	2.75" / 3 sec	20	205	33	74.9	2	
270	2	8/12/04	3:34:55 PM	3:35:25 PM	9	4	500	2.75" / 3 sec	20	205	36	18.0	2	loose pipe joint (back to stopping at -5)
271	15	8/12/04	3:41:26 PM	3:43:49 PM	16	11	500	2.75" / 3 sec	20	205	33	78.5	2	
272	18	8/12/04	3:49:37 PM	3:51:30 PM	13.5	8.5	500	2.75" / 3 sec	20	205	33	62.0	2	
273	13	8/12/04	3:57:55 PM	3:59:53 PM	13.5	8.5	500	2.75" / 3 sec	20	205	33	65.0	2	
274	5	8/12/04	4:04:57 PM	4:06:35 PM	14	9	500	2.75" / 3 sec	20	205	33	53.8	2	
275	10	8/12/04	4:10:53 PM	4:12:35 PM	14.5	9.5	500	2.75" / 3 sec	20	205	33	56.1	2	
276	6	8/12/04	4:18:35 PM	4:20:05 PM	13.5	8.5	500	2.75" / 3 sec	20	205	33	49.5	2	
277	1	8/12/04	4:24:31 PM	4:28:20 PM	14	9	500	2.75" / 3 sec	20	205	33	60.1	2	
278	14	8/12/04	4:31:12 PM	4:32:50 PM	12.5	7.5	500	2.75" / 3 sec	20	205	33	53.8	2	
298	16	8/16/04	9:57:33 AM	9:58:33 AM	8	4	500	2.75" / 3 sec	20	217	33	33.0	2	
299	3	8/16/04	10:03:40 AM	10:06:10 AM	15.5	11.5	500	2.75" / 3 sec	20	217	32	80.0	2	
300	8	8/16/04	10:10:33 AM	10:12:54 AM	14.5	10.5	500	2.75" / 3 sec	20	217	32	75.2	2	



**INEEL Contract No. 23378 - InSitu Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. SLV17-4**

Jet Grouting Method - Single Fluid
Injection Nozzle Arrangement - 2 nozzles



Soil Vault Row 20

Orientation of the GCU placed over the SVR-20 disposal location is shown below. One GCU was installed over this location.

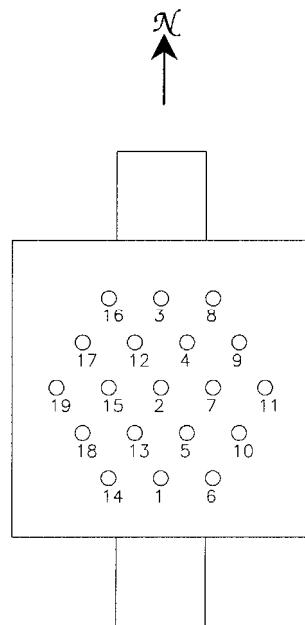


Figure B-7. Orientation of western grout containment units at Soil Vault Row 20 disposal location.

**INNEEL Contract No. 23378 - In-Situ Grouting of Be Blocks in the SDA
Jet Grout Installation Log - Be Block No. SLV 20**

Jet Grouting Method - Single Fluid Injection Nozzle Arrangement - 2 nozzles

Sequential Column No.	Jet Grout Column No.	Installation Date	Start Injection Time	End Injection Time	Drilled Length (ft)	Jetted Length (ft)	Grout Injection Pressure (bars)	Retraction/Step Rate (in/sec)	Rotation Rate (rpm)	Grout Temp. (deg F)	Strokes per minute	Grout Volume (Gal)	Grout batch # (Ticket)	Observations / Remarks
372	14	8/24/04	11:20:40 AM	11:23:30 AM	18	14	500	2.75"+/- 2.5 sec	25	208	30	84.9	3	
373	15	8/24/04	11:30:20 AM	11:33:13 AM	18	14	500	2.75"+/- 2.5 sec	25	208	32	92.2	3	
374	16	8/24/04	11:38:45 AM	11:41:20 AM	18.5	14.5	500	2.75"+/- 2.5 sec	25	208	32	82.6	3	
375	12	8/24/04	11:47:30 AM	11:49:50 AM	18.5	14.5	500	2.75"+/- 2.5 sec	25	208	32	74.6	3	
376	13	8/24/04	11:54:35 AM	11:57:30 AM	18	14	500	2.75"+/- 2.5 sec	25	208	32	93.4	3	
377	1	8/24/04	12:02:15 PM	12:05:25 PM	18	14	500	2.75"+/- 2.5 sec	25	208	32	101.4	3	
378	2	8/24/04	12:10:14 PM	12:13:15 PM	18	14	500	2.75"+/- 2.5 sec	25	208	32	96.6	3	
379	3	8/24/04	12:19:40 PM	12:22:39 PM	18.5	14.5	500	2.75"+/- 2.5 sec	25	208	32	95.4	3	
380	4	8/24/04	12:27:52 PM	12:30:34 PM	18	14	500	2.75"+/- 2.5 sec	25	208	32	86.4	3	
381	5	8/24/04	12:35:25 PM	12:38:06 PM	18	14	500	2.75"+/- 2.5 sec	25	208	32	85.4	3	
382	6	8/24/04	12:43:35 PM	12:46:10 PM	18.5	14.5	500	2.75"+/- 2.5 sec	25	208	32	82.6	3	
383	7	8/24/04	12:52:38 PM	12:55:45 PM	15	11	500	2.75"+/- 2.5 sec	25	208	32	99.8	3	drill got stuck while letting for a few sec
384	8	8/24/04	1:01:45 PM	1:04:44 PM	18.5	14.5	500	2.75"+/- 2.5 sec	25	208	32	95.4	3	
385	9	8/24/04	1:11:00 PM	1:14:00 PM	18.5	14.5	500	2.75"+/- 2.5 sec	25	208	32	96.0	3	
386	10	8/24/04	1:20:01 PM	1:22:08 PM	18.5	14.5	500	2.75"+/- 2.5 sec	25	208	32	67.8	3	
387	11	8/24/04	1:27:30 PM	1:29:30 PM	18.5	14.5	500	2.75"+/- 2.5 sec	25	208	32	64.0	3	clean out move to other side of GCU
388	17	8/24/04	2:29:00 PM	2:31:25 PM	18	14	500	2.75"+/- 2.5 sec	25	208	32	77.4	3	
389	18	8/24/04	2:36:22 PM	2:38:27 PM	18	14	500	2.75"+/- 2.5 sec	25	208	33	68.6	3	
390	19	8/24/04	2:44:00 PM	2:46:20 PM	18	14	500	2.75"+/- 2.5 sec	25	208	32	74.6	3	



